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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/808,426

03/25/2004

Tsukasa Eguchi

118985

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25944

7590

10/28/2005

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EXAMINER

KANG, DONGHEE

ART UNIT

PAPER NUMBER

2811

DATE MAILED: 10/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/808,426

Applicant(s)

EGUCHI, TSUKASA

Examiner

Donghee Kang

Art Unit

2811



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10-04-05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. Acknowledgment is made of receipt of applicant's Information Disclosure Statement (PTO-1449) filed October 24, 2005.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 & 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Radigan et al. (US 4,289,574).

Re claim 1, Radigan et al. teach a semiconductor device, comprising (Fig.6):

A first conductive layer (34-35) formed on a substrate; an insulating interlayer (33) positioned over the first conductive layer, the insulating interlayer having a contact hole that is at least partially disposed directly on the first conductive layer; and a second conductive layer (36) formed on the insulating interlayer, the second conductive layer being electrically coupled to the first conductive through the contact hole; the contact hole extending beyond either an edge of the second conductive layer in plan view; and the first conductive layer entirely overlapping the contact hole and the second conductive layer partially overlapping the contact hole in plan view.

Re claim 6, Radigan et al. the second conductive layer overlapping the contact hole that is shifted to one side of the second conductive layer.

4. Claims 1, 4-5, 7, & 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawachi et al. (US 6,104,040).

Re claim 1, Kawachi et al. teach a semiconductor device, comprising (Fig. 1):

A first conductive layer (33) formed on a substrate; an insulating interlayer (31 & 32) positioned over the first conductive layer, the insulating interlayer having a contact hole that is at least partially disposed directly on the first conductive layer; and a second conductive layer (14) formed on the insulating interlayer, the second conductive layer being electrically coupled to the first conductive through the contact hole; the contact hole extending beyond either an edges of the second conductive layer in plan view; and the first conductive layer entirely overlapping the contact hole and the second conductive layer partially overlapping the contact hole in plan view.

Re claim 4, Kawachi et al. teach one of the first conductive layer and the second conductive layer extending parallel to one another (12) at a predetermined pitch.

Re claim 5, Kawachi et al. one of the first and second conductive layers intersecting the other of the first and second conductive layers.

Re claim 7, Kawachi et al. teach the second conductive layer overlapping the contact hole, two opposing edges of the contact hole being outside of the second conductive layer.

Re claim 10, Kawachi et al. teach an electro-optical unit, the semiconductor device according to claim 1 being for a substrate of the electro-optical unit to hold an electro-optical substance and pixels having pixel switching transistors, and pixel electrodes being disposed in a matrix on the substrate of the electro-optic unit.

Re claim 11, Kawachi et al. teach the electro-optical substance being liquid crystal disposed between the substrate of the electro-optical unit and a counter substrate.

Re claim 12, Kawachi et al. teach the electro-optical substance being an organic electroluminescent substance that constitutes light emitting elements on the substrate of the electro-optical unit.

Re claim 13, Kawachi et al. teach an electronic apparatus comprising the electro-optical unit according to claim 10.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Radigan et al. in view of Huh et al. (US 6,307,216).

Radigan et al. teach the second conductive layer partially overlapping the contact hole. Radigan et al. do not explicitly teach the contact hole being rectangular in plan view and the second conductive layer extending diagonally with respect to edges of the contact hole. Huh et al. teach the contact hole being rectangular in plan view. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the contact hole having rectangular shape as taught by Huh since the rectangular shape is easy to make hence saving time and cost during the manufacture

processing. Huh et al also teach the conductive layer extending diagonally with respect to edges of the contact hole (Fig.1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the conductive layer extending diagonally with respect to edges of the contact hole in order to save the space.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donghee Kang whose telephone number is 571-272-1656. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Loke can be reached on 571-272-1657. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Donghee Kang
Primary Examiner
Art Unit 2811

dhk